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setting the permissible absorption limits of said fourth gas relative to said exposure beam higher than that of said third gas.

10 measuring the position of said first object or said second object relative to a predetermined reference member by illuminating a stage moving with said first object or said second object and said reference member with a measurement beam and a reference beam, respectively; and

7. An exposure method in which a second object is exposed, via
20 a projection system, with an exposure beam that has passed a
pattern of a first object, said exposure method comprising:

blowing a gas that transmits said xposure light to said first

exhausting, via said gas blown in said first space, a substance generated from said second object by the illumination thereof with said exposure beam from the optical path of said exposure beam.

dividing the space between said projection system and said second object into a first space on the side of said projection system and a second space on the side of said second object and providing, within the boundary portion between said first and second spaces, an aperture at a region through which a detection beam for detecting the position of said first object or said second object passes; and

9. An exposure method in which a second object is exposed, via a projection system, with an exposure beam that has passed a pattern of a first object, said exposure method comprising:

setting the contamination degree of impurities of said first space smaller than that of said second space.

10. An exposure apparatus in which a second object is exposed, via a projection system, with an exposure beam that has passed

a pattern of a first object, said exposure apparatus comprising:
an aperture plate which is disposed between said projection system and said second object and on which an aperture for making said exposure beam pass through is formed;

5 a first gas supply mechanism that supplies a first gas that transmits said exposure beam to a first space between said aperture plate and said projection system; and

an environment control mechanism that controls the environment of a second gas which is supplied to a second space between said aperture plate and said second object and transmits said exposure beam, wherein said environment control mechanism controls the contamination degree of impurities of said second gas so as to be different from that of said first gas.

10 11. An exposure apparatus according to claim 10,
15 wherein a chamber that substantially hermetically seals, except for said aperture of said aperture plate, said second space enclosing said second object is provided;

wherein said environment control mechanism has a second gas supply mechanism that supplies a second gas that transmits said exposure beam into said chamber;

20 wherein said first gas supply mechanism supplies said first gas in a single direction in said first space; and

wherein the contamination degree of impurities that absorb said exposure beam of said first gas is smaller than that of said second gas.

25 12. An exposure apparatus in which a second object is exposed, via a projection system, with an exposure beam that has passed a pattern of a first object, said exposure apparatus comprising:

a chamber that substantially hermetically seals a space enclosing said stage;

an air bearing device that float said stage on said base member in a differential exhaust system by blowing a fourth gas and sucking said fourth gas; and

13. An exposure apparatus in which a second object is exposed, via a projection system, with an exposure beam that has passed a pattern of a first object, said exposure apparatus comprising:

an interferometer that measures the position of said first object or said second object relative to said reference member by illuminating said stage and said reference member with a measurement beam and a reference beam, respectively; and

14. An xposure apparatus in which a s cond obj ct is xposed,
via a proj ction syst m, with an xposure beam that has pass d

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